

EPA Proposes Revisions to Cleanup Plan

Oconomowoc Electroplating Co., Inc

Ashippun, Wisconsin

November 2010

Public comment period

EPA will accept comments on its revised cleanup plan proposal during the public comment period that runs from Nov. 15 to Dec. 15. Written comments may be submitted through these methods:

- By mail (see enclosed comment form).
- Electronically via the Web at www.epa.gov/region5/publiccomment/oconomowoc-pubcomment.htm.
- By fax to Susan Pastor at 312-385-5344.
- E-mail to Susan Pastor at pastor.susan@epa.gov.

Potential public meeting

If there is sufficient interest, EPA will hold a public meeting on this proposed plan so the public can ask questions and provide comments. Contact Susan Pastor by Nov. 22 to request a meeting.

For more information

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U.S. Environmental Protection Agency and state partner Wisconsin Department of Natural Resources want to revise the original cleanup plan for the Oconomowoc Electroplating Co., Inc. site because the active treatment system is no longer effective in removing the leftover contamination. Under Superfund law, EPA needs to officially amend the original cleanup plan called a “record of decision.”¹ This proposed plan fact sheet outlines the site history, explains the recommended changes to the original plan, describes the cleanup alternatives that were considered, and discusses the pros and cons of making changes to the original cleanup plan.

In 1990, EPA adopted a plan for cleaning up on-site ground water (underground supply of fresh water) that was contaminated by toxic metals and volatile organic compounds, commonly known as VOCs. The VOCs included trichloroethylene or TCE, used in electroplating and degreasing operations, and vinyl chloride, produced when TCE degrades in the natural environment. EPA documented that plan in a record of decision or ROD, and based on new information, expanded that plan in 1991 to include cleanup goals for the wetlands and nearby Davy Creek. EPA expanded the plan again in 1994 to accommodate the removal of the abandoned electroplating building and hazardous chemicals inside.

The 1991 cleanup plan for the Oconomowoc site included a ground water pumping system to remove contamination, which had been pumping and treating contaminated ground water from 1997 until 2004 when the system was shut down after EPA determined it was no longer effective. The type of soil at the site limits the ability of the ground water treatment system to remove the contamination. EPA and WDNR shut down the system based on these findings:

- The ground water treatment system has removed much of the contamination but some remains in certain places where pumping is no longer effective.
- Conditions in the ground water are favorable for bacteria that naturally eliminate TCE and other contaminants.

Since shutdown of the treatment system, this process of “natural attenuation” has been lowering TCE concentrations. Natural attenuation means that a variety of physical, chemical, or biological processes are acting without human intervention to reduce the amount and limit the expansion of contamination in the ground water. With natural attenuation as effective at the site as the more expensive active pump-and-treat system, the 1990 record of decision needs to be officially amended. EPA and WDNR recommend a revised cleanup plan that includes monitored natural attenuation, or MNA, because it is not part of the 1990 plan.

Site history

The 10.5-acre Oconomowoc site includes the former electroplating plant, waste lagoons and a section of wetlands. The property is located in the unincorporated town of Ashippun, a rural area about 35 miles west of

¹Section 117(a) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA, known as the Superfund Law) requires publication of a notice describing the proposed modifications to the cleanup plan. Information supporting the decision, such as the focused feasibility study, must also be made available to the public for comment. This fact sheet is a summary of information contained in the administrative record for the Oconomowoc Electroplating Co., Inc. site.

Info repository

Site-related documents and files may be viewed at:

Ashippun Town Hall
W1266 Highway O
Oconomowoc, Wis.

An administrative record, which contains detailed information that will be used in the selection of the cleanup plan, is located at Ashippun Town Hall, Oconomowoc Public Library, 200 W. South St., and at EPA's Chicago office.

On the Web

www.epa.gov/region5/sites/oconomowoc

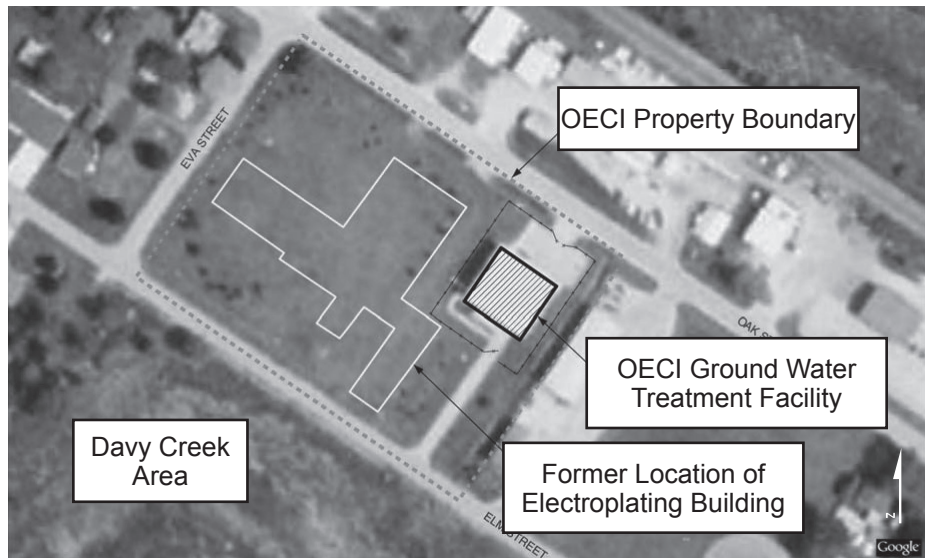


Figure 1 - Site Location Map

Milwaukee. The industrial facility used metals, chemicals and organic compounds in its production process from 1957 to the early 1980s. During that time the company discharged untreated wastewater into nearby wetlands and Davy Creek. Two unlined lagoons on the property contained electroplating sludge. These lagoons leaked and sometimes overflowed. Contaminants made their way into the ground water beneath and downstream of the site. After the plant closed, the location was added to the National Priorities List, a roster of the nation's most hazardous waste sites eligible for cleanup under EPA's Superfund program. Environmental investigations began in the mid-1980s.

Current plan

The current cleanup, plan adopted in 1990, involved cleaning up the vacated buildings, soil, lagoons, Davy Creek and wetlands on the site. Based on that approved plan, from 1992 to 1996 EPA removed dilapidated buildings; installed a fence around the property; removed and disposed of soil contaminated with heavy metals; pumped out and treated contaminated ground water and lagoon water; removed and disposed of contaminated concrete and sludge from the lagoons; removed and disposed of contaminated sediment (mud) from the creek and lagoons; and removed and disposed of some plant material from the wetlands and portions of the creek. As a result, the levels of metals in the ground water were greatly decreased. By the summer of 2002, they were low enough that EPA and WDNR decided to stop treating metals with the ground water treatment system.

Summary of cleanup alternatives

Since shutdown of the ground water treatment system, EPA evaluated additional cleanup alternatives for the Oconomowoc site. The potential alternatives included various treatment options to reduce the toxicity, mobility, or volume of wastes.

Based on the risks present at the site and the cleanup

options available, the following five alternatives were assembled and then evaluated against nine criteria required by federal law (see P. 3 box for explanation of criteria).

Alternative 1—No Further Action

EPA uses the no-action option as a baseline for comparison of other cleanup alternatives. Alternative 1 does not include any further ground water cleanup, monitoring or other site controls. The cost will cover reviews of the site every five years as required by the Superfund law. Cost: \$77,000

Alternative 2—Monitored Natural Attenuation (MNA)

Alternative 2 relies on MNA to use natural processes to treat ground water contaminants. Based on site data, conditions are favorable for removal of VOCs through biological processes. This alternative also includes sampling at various locations to ensure that MNA continues to work until cleanup goals are met. Cost: \$1.3 million

Alternative 3—Source Removal or In-Place Treatment and MNA (*this is EPA's recommended cleanup method*)

Under Alternative 3, source areas would be investigated to determine the extent of contamination. This information would then be used to select either excavation or in-place chemical treatment to enhance source-area biological activity and further remove VOCs. This alternative also includes MNA from Alternative 2. Cost: \$1.2 million

Alternative 4—Source Removal or In-Place Treatment, Ground Water Extraction and Treatment, and Long-Term Monitoring

Alternative 4 targets the source areas by excavation or in-place chemical treatment, similar to Alternative 3. This would be followed by ground water extraction and treatment, which targets the remaining VOCs. A long-term monitoring program would then be implemented that evaluates natural attenuation and ensures compliance with state and federal standards. Cost: \$2.2 million



Figure 2 - EPA's proposed plan includes permanently shutting down its pump and treat system in the town of Ashippun.

Evaluation criteria

EPA uses nine criteria to evaluate cleanup options. A table comparing the alternatives against these criteria is on the next page.

- 1. Overall protection of human health and the environment** addresses whether an option adequately protects human health and the environment. This criterion can be met by reducing or eliminating contaminants or by reducing people's exposure to them.
- 2. Compliance with applicable or relevant and appropriate requirements**, referred to as ARARs, ensures that each project complies with federal, state, and local laws and regulations.
- 3. Long-term effectiveness and permanence** evaluates how well an option will work in the long term, including how safely remaining contaminants can be managed.
- 4. Reduction of toxicity, mobility, or volume through treatment** addresses how well the cleanup option reduces the harmful effects, movement, and amount of contaminants through permanent treatment methods.
- 5. Short-term effectiveness** evaluates how quickly the cleanup can be done, as well as its potential impacts on cleanup workers, area residents, and the environment.
- 6. Implementability** evaluates the technical difficulty in building and operating the cleanup system and whether materials and services are routinely available to complete the project.
- 7. Cost** includes estimated capital or startup costs. An example is the cost of buildings, treatment systems and monitoring wells. It also considers cost to implement the cleanup and operate and maintain it over time. Examples include laboratory analysis, repairs, and personnel hired to operate equipment. A cleanup is considered cost effective if its costs are proportionate to its overall effectiveness.
- 8. State acceptance** is whether the state environmental agency, in this case WDNR, agrees with EPA's recommended option.
- 9. Community acceptance** evaluates if the community near the site accepts the option. EPA and WDNR will evaluate community acceptance after the public comment period.

Alternative 5—Source Removal or In-Place Treatment, Nutrient Injection, and MNA

Alternative 5 targets the source areas by excavation or in-place chemical treatment, similar to Alternative 3. This would be followed by biological treatment of the VOC contaminants. MNA, as described in Alternative 2, along with long-term monitoring of the ground water contaminants would also be done. An alternate water supply for nearby residents would be included if contaminant levels in private wells rise to unsafe levels. Cost: \$980,000

Comparing the current and proposed plans

EPA evaluated the two cleanup plans (1990 plan versus the revised plan) against several evaluation criteria required by law (see the box explaining the criteria on this page and the table comparing the two plans on the back page). State and community acceptance will be evaluated after the public comment period. The table shows how the current and proposed plans meet EPA's evaluation criteria.

This revised plan would be equally effective in protecting people and the environment over the long term. Both plans comply with state and federal laws. Both also require some site controls such as barring residential use for areas where soil was cleaned up and prohibiting ground water use until cleanup goals are met. The revised plan will require continued long-term monitoring and controls. Both plans would meet EPA's cleanup goals and provide long-term effectiveness. The revised plan, however, may take less time to complete, is easier to implement, and costs less.

Recommended cleanup alternative

EPA's recommended alternative for cleaning up the Oconomowoc Electroplating Co., Inc. site is Alternative 3 because it will remove contaminated materials, protect human health and the environment, provide long-term reliability, and comply with state and federal regulations in a cost-effective manner.

Revised cleanup plan

Under the revised cleanup plan proposed by EPA and WDNR, the ground water treatment system would remain shut down and MNA would be allowed to work after either excavation or in-place chemical treatment was completed. Since 2004, ground water monitoring has shown steady or declining contaminant levels in key monitoring wells. EPA determined that conditions are favorable for MNA after confirming the presence of bacteria that break down the contamination. The site would still be monitored to make sure VOC levels continue to decrease. EPA will also put into place site controls, such as barring residential use for areas where soil was cleaned up and prohibiting ground water use until cleanup goals are met.

EPA and WDNR encourage the public to comment on the revised cleanup plan. Based on public comments, they can modify the proposed plan, choose a new plan, or keep

Evaluating the cleanup alternatives

Evaluation Criteria	Alternative 1*	Alternative 2	Alternative 3 (recommended alternative)	Alternative 4	Alternative 5
Overall protection of human health and the environment	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Meets federal and state requirements	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Long-term effectiveness and permanence	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Reduction of toxicity, mobility, or volume through treatment	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Short-term effectiveness	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Implementability	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Cost (Present worth)	\$77,000	\$1.3 million	\$1.2 million	\$2.2 million	\$980,000
State acceptance	Will be evaluated after the public comment period				
Public acceptance	Will be evaluated after the public comment period				

☒ Fully meets criteria ☐ Does not meet criteria

* Alternative 1—No Action was dropped from consideration because it does not protect human health and the environment.

the cleanup plan as proposed. Read the left-hand box on Page 1 to find out how you can participate in the decision-making process.

Next steps

EPA, in consultation with WDNR, will evaluate all comments received during the public comment period before deciding whether to adopt the revised plan. Responses to public comments will be in a document called a responsiveness summary that is typically attached to the final record of decision amendment. The final

cleanup decision will be announced in a local newspaper and a copy of the amendment will be sent to the Ashippun Town Hall for public review. The amendment will also be posted at www.epa.gov/region5/sites/oconomowoc.


After a final plan is selected, contractors will monitor the cleanup with oversight by EPA and WDNR. They will also oversee institutional controls, such as deed restrictions, to minimize residents’ possible exposure to contamination in the future.

This fact sheet is printed on paper made of recycled fibers.

OCONOMOWOC ELECTROPLATING CO., INC SITE: EPA Proposes Revisions to Cleanup Plan

RETURN SERVICE REQUESTED

FIRST CLASS


United States
Environmental Protection
Agency
Region 5
Superfund Division (SI-7J)
77 W. Jackson Blvd.
Chicago, IL 60604-3590

Comment Sheet _____

EPA is interested in your comments on the revised cleanup plan for the Oconomowoc Electroplating Co., Inc. site. EPA will consider public comments before selecting a final cleanup plan. Please use the space below to write your comments, then fold and mail this form. Comments must be postmarked by December 15. If you have general questions, contact EPA Community Involvement Coordinator Susan Pastor at 800-621-8431, Ext. 31325. Those with Internet access may submit their comments to EPA at www.epa.gov/region5/publiccomment/oconomowoc-pubcomment.htm.

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Place Stamp Here

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